

MEMO

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From:
Brad Saunders, Project Manager

Date:
October 26, 2020

Arcadis Project No.:
30042811

Subject:
Joslyn Parcels Scope of Work
RACER Pontiac North Campus
Pontiac, Michigan

This Scope of Work was prepared following a historical summary compiled for two parcels (Joslyn/Lenox and Joslyn/Lebaron) owned by RACER Trust which are located in an area east of the RACER Trust and General Motors LLC Pontiac North Campus (PNC) along Joslyn Avenue in Pontiac, Michigan. Due to historic soil and groundwater data exceeding current Michigan Department of Environment, Great Lakes, and Energy (EGLE) criteria and screening levels, the following field activities are planned to assess current conditions at the two parcels.

Prior to completing drilling activities, utility clearance will be performed at each parcel using a minimum of three lines of evidence including contacting MISSDIG, soft dig methods to a depth of 5 feet below ground surface (ft bgs) and contracting a private utility locator.

A review of historic reports (CRA 1998; Parsons 1997) was completed to estimate appropriate locations for additional field investigation. Historic reporting on the Joslyn/Lenox parcel noted depth to groundwater at approximately 12 feet bgs based on static water levels from on-site monitoring wells. The water bearing unit was identified as a sand seam confined between two clay layers with the bottom of the seam at approximately 15 feet bgs. Groundwater flow was noted as to the southeast although no groundwater contour maps or groundwater elevation tables were included in historic reports.

A total of thirteen (13) proposed soil borings (five on the Joslyn/Lebaron parcel; eight on the Joslyn/Lenox parcel) will be advanced to approximately 15 to 20 ft bgs (**Figures 1 and 2**). Proposed boring locations were placed to best identify potential impacts at historic structures or previously sampled locations, assess groundwater flow direction across the parcels, and assess site conditions near the property boundaries closest to potential off-site receptors. Soil core samples will be collected continuously for description, screened with a photoionization detector (PID), and documented for saturated conditions. Up to two soil samples from the unsaturated zone (anticipated to be less than 12 feet bgs) will be collected for laboratory

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analysis from each boring: one at the highest PID detection (if detections and/or field observations indicate impact), and/or one at the interval above the first encountered groundwater table.

Temporary monitoring wells will be installed using hollow stem auger drilling techniques and will be constructed with 2-inch diameter Schedule-40 PVC well materials. A 5-foot, 10-slot PVC screen targeting the top of the water table will be utilized in each temporary monitoring well at the southern Joslyn/Lenox parcel. As the potential for denser chlorinated solvents may exist at the northern Joslyn/Lebaron parcel, the screens will target the bottom of the water table or the bottom of the saturated sand seam, if present.

Temporary monitoring wells will be developed using pump and surge methods. In addition, the horizontal location, ground elevation and the top-of-casing measuring point elevation of each temporary monitoring well will be surveyed by a licensed professional once installed to aid in the determination of groundwater flow direction across the parcels.

Soil and groundwater samples will be collected and analyzed for volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs) at the southern Joslyn/Lenox parcel and VOCs at the northern Joslyn/Lebaron parcel (**Table 1**). Select temporary monitoring wells may be finished and converted to permanent monitoring wells depending on field conditions and analytical results. Temporary wells not converted to permanent well locations will be abandoned. A brief technical memo-style report will be prepared to document the activities.

Attachments:

Figures

- 1 Proposed Borings – Joslyn/Lenox Parcel
- 2 Proposed Borings – Joslyn/Lebaron Parcel

Tables

- 1 Proposed Soil Boring Locations – Joslyn Ave. Parcels

References

CRA. 1998. Leaking Underground Storage Tank Closure Report. October 30, 1998.

Parsons. 1997. Initial Assessment Report, Vacant Lot, GM Powertrain, Pontiac, Michigan. January 30, 1997.



APPROXIMATE LOCATION OF OTHER FORMER STRUCTURES (PRESENT 1949 - 1967)

(PRESENT 1956 - 1967)

(PRESENT 1952 - 1967)

APPROXIMATE LOCATION OF FORMER GAS STATION BUILDING (PRESENT 1952 - 1967)

POTENTIAL GAS STATION CANOPY

Lenox

Location		SB-008	
Depth interval (ft bgs)	12-14'	14-16'	
Date	10/1996	10/1996	
Chromium VI	7,410	13,200	

Location		SB-013	
Depth interval (ft bgs)	12-14'	14-16'	
Date	10/1996	10/1996	
Chromium VI	12,000/6,120	12,300	

Location		SB-017	
Depth interval (ft bgs)	8-10'	16-18'	
Date	10/1/97	10/1/97	
Benzene	200	ND	
Ethylbenzene	3,100	ND	
Xylenes	11,092	ND	
Naphthalene	1,700	ND	
2-Methylnaphthalene	13,000	9,100	

Location		SB-005	
Depth interval (ft bgs)	10-12'	12-14'	
Date	10/1996	10/1996	
Benzene	11	58	
Ethylbenzene	43	60	
Chromium VI	17,700	11,100	

Location		MW6-98	
Date	08/1998		
Ethylbenzene	570/310		
Xylenes	750/210		

Location		BH7-98	
Date	03/1998		
Ethylbenzene	1,700		
Xylenes	2,800		

Location		MW9-98	
Date	08/1998		
Ethylbenzene	330		
Xylenes	280		

Location		MW5-98	
Date	08/1998		
Ethylbenzene	1,300		
Xylenes	4,900		

Location		BH1-98	
Date	03/1998		
Ethylbenzene	1,900		
Xylenes	8,600		

GROUNDWATER SAMPLE RESULT	
SOIL SAMPLE RESULT	
750/120	
Duplicate sample results	
Exceeds Residential RIASLs	
Exceeds Non-Residential RIASLs	
Exceeds GSI/GSIP criteria	
Exceeds Residential/Non-Residential Drinking Water or DWP criteria	
Exceeds Residential/Non-Residential Health-Based Drinking Water criteria	
Exceeds Residential Volatilization to Indoor Air criteria	

Location		SB-006	
Depth interval (ft bgs)	12-14'	14-16'	
Date	10/1996	10/1996	
Chromium VI	13,100	14,200	

Location		SB-007	
Depth interval (ft bgs)	12-14'	14-16'	
Date	10/1996	10/1996	
Chromium VI	9,470	19,000	

Location		SB-014	
Depth interval (ft bgs)	10-12'	16-18'	
Date	10/1/97	10/1/97	
Benzene	43	ND	
Ethylbenzene	270	10	
Xylenes	560	29	

Location		SB-016	
Depth interval (ft bgs)	10-12'	14-16'	
Date	10/1/97	10/1/97	
Benzene	7	ND	
Ethylbenzene	120	ND	

Location		SB014 (16-18')	
Date	10/1997		
Benzene	7,200		
Toluene	6,200		
Ethylbenzene	12,000		
Xylenes	30,000		
Acenaphthylene	610		
Naphthalene	1,400		
2-Methylnaphthalene	1,200		

Location		SB-009	
Depth interval (ft bgs)	12-14'	14-16'	
Date	10/1996	10/1996	
Chromium VI	13,900	9,560	

Location		SB-004	
Depth interval (ft bgs)	6-8'	16-18'	
Date	10/1996	10/1996	
Benzene	ND	20	
Ethylbenzene	42	7	
Chromium VI	15,400	10,800	

Location		MW-3-98	
Date	02/1998		
Benzene	2,500		
Toluene	330		
Ethylbenzene	1,600		
Xylenes	4,000		
Naphthalene	120		

Location		SB-015	
Depth interval (ft bgs)	10-12'	14-16'	
Date	10/1/97	10/1/97	
Benzene	2,100	1,500	
Ethylbenzene	3,600	120	
Xylenes	8,100	183	
2-Methylnaphthalene	9,100	ND	

Location		SB-001	
Depth interval (ft bgs)	6-8'	10-12'	
Date	10/1996	10/1996	
Chromium VI	9,120	14,200	

Location		SB-002	
Depth interval (ft bgs)	10-12'	13-15'	
Date	10/1996	10/1996	
Benzene	ND	19	
Ethylbenzene	ND	37	
Chromium VI	17,200	9,380	

Location		SB-003	
Depth interval (ft bgs)	14-16'	16-18'	
Date	10/1996	10/1996	
Chromium VI	11,300	11,800	

Location		BH2-98	
Date	03/1998		
Benzene	190		
Ethylbenzene	72		
Xylenes	50		

LEGEND

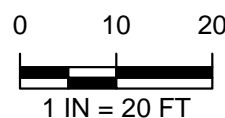
- PROPOSED BORING LOCATION
- HISTORICAL MONITORING WELL
- HISTORICAL SOIL BORING
- NO SOIL SAMPLE COLLECTED FOR LABORATORY ANALYSIS. PID READINGS > 1000 PPM AT AT LEAST ONE INTERVAL.
- NO SOIL OR GROUNDWATER CRITERIA EXCEEDANCES
- HISTORIC SITE STRUCTURES
- APPROXIMATE PROPERTY BOUNDARY

NOTES

1. All locations of soil borings and monitoring wells are approximate. Estimated site feature locations based on available aerial photos.
2. Historic groundwater and soil analytical results compared to EGLE Part 201 Generic Cleanup Criteria and Screening Levels, dated August 3, 2020 (groundwater) and December 30, 2013; GSI Protection updated June 25, 2018 (soil) and the EGLE Media-Specific Volatilization to Indoor Air - Recommended Interim Action Screening Levels dated August 2017.
3. All soil results in micrograms per kilogram (ug/kg).
4. All groundwater results in micrograms per liter (ug/L).

ACRONYMS

- ND - Not Detected
- RIASL - Recommended Interim Action Screening Levels.
- GSI - Groundwater Surface Water Protection
- GSIP - Groundwater Surface Water Protection
- DWP - Drinking Water Protection



RACER TRUST
PONTIAC NORTH CAMPUS
PONTIAC, MICHIGAN

PROPOSED BORINGS
JOSLYN / LENOX PARCEL



FIGURE

1

CITY: Novi DIV: ENV DB: TRY PIC: PM: TM: TR: PROJECT NUMBER: B0064607 2012.0002 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet
 \\10.19.7.200\data\ENV\Novi\Brighton_MMI\Motors\liquidation\Company\PontiacNorthCampus\Documents\ArcMap\Fig2_ProposedBorings_JoslynLebaron.mxd PLOTTED: 10/8/2020 5:04:23 PM BY: T.J.Scott



LEGEND

- PROPOSED BORING LOCATION
- HISTORIC SITE STRUCTURES
- APPROXIMATE PROPERTY BOUNDARY

0 10 20

1 IN = 20 FT

RACER TRUST
 PONTIAC NORTH CAMPUS
 PONTIAC, MICHIGAN

PROPOSED BORINGS
JOSLYN / LEBARON PARCEL

ARCADIS
Design & Consultancy
 for natural and
 built assets

FIGURE
2

Table 1
Proposed Soil Boring Locations - Joslyn Ave. Parcels
RACER Pontiac North Campus
Pontiac, Michigan

Proposed Soil Boring ID	Temporary Well?	No. of Soil Samples	No. of GW Samples	Soil and groundwater analyses
Joslyn/Lenox Parcel (South)				
JS-SB-01	Y	Up to 2	1	VOCs and PAHs
JS-SB-02	Y	Up to 2	1	VOCs and PAHs
JS-SB-03	Y	Up to 2	1	VOCs and PAHs
JS-SB-04	Y	Up to 2	1	VOCs and PAHs
JS-SB-05	Y	Up to 2	1	VOCs and PAHs
JS-SB-06	Y	Up to 2	1	VOCs and PAHs
JS-SB-07	Y	Up to 2	1	VOCs and PAHs
JS-SB-08	Y	Up to 2	1	VOCs and PAHs
Joslyn/Lebaron Parcel (North)				
JN-SB-01	Y	Up to 2	1	VOCs
JN-SB-02	Y	Up to 2	1	VOCs
JN-SB-03	Y	Up to 2	1	VOCs
JN-SB-04	Y	Up to 2	1	VOCs
JN-SB-05	Y	Up to 2	1	VOCs

PAHs - Polycyclic aromatic hydrocarbons

VOCs - Volatile organic compounds

Y - Yes

1) Up to 2 soil samples will be collected from the unsaturated zone from each boring: one at the highest PID detection (if detections and/or field observations indicate impact), and/or one at the interval above the first encountered groundwater table.